

AN ORDINANCE TO AMEND CHAPTER 38, ZONING, OF THE CODE OF THE CITY OF FALLS CHURCH, VIRGINIA, BY MAKING CORRECTIONS TO SECTIONS 38-16, 38-17, 38-18, 38-23, 38-24, 38-25, 38-26 AND 38-28; ADDING SECTION 38-30, "LANDSCAPING", REPEALING THE LANDSCAPING PORTION OF SECTION 38-31(11), "OFF -STREET PARKING REQUIREMENTS"; AND AMENDING AND REENACTING SECTION 38-42, "CBPO, CHESAPEAKE BAY PRESERVATION AREA OVERLAY DISTRICT"

### **Section 38-30 Landscaping**

(a) *Intent and Objectives.* The intent of this section is to preserve existing healthy vegetation and create new landscaping areas in areas that are being developed or redeveloped in commercial and residential areas. . Natural vegetation and landscape plantings are an important community asset as they provide environmental benefits, enhance community character, and add to property values. Definitions within this section shall be consistent with Section 38-42, Chesapeake Bay Preservation Area Ordinance. The objectives set forth in this section include the following:

- (1) Preserve and enhance the longevity of vegetation in residential and commercial areas throughout the City;
- (2) Reduce soil erosion and stormwater runoff and protect water quality by minimizing removal of existing vegetation;
- (3) Enhance the appearance and preserve the character of the surrounding properties and public rights-of-way;
- (4) Improve the environment for pedestrians along streets and within parking lots and other pedestrian areas;
- (5) Conserve energy and moderate solar radiation through the use of shade tree plantings in parking lots and streets;
- (6) Visually integrate developments into the existing landscape and minimize potential conflicts between abutting developments, and ensure that a natural vegetative area of appropriate size and density is located between zoning districts; and
- (7) Improve the quality of vegetation selection through the implementation of landscape standards and specifications.

(b) *Single Family Residential Development - Tree Canopy Coverage Required on Residential Lots Zoned R1-A, Low Density Residential and R1-B, Medium Density Residential.*

- (1) It is the intent of this subsection to regulate existing and replacement trees and/or shrubs to provide tree canopy coverage on developing and/or

redeveloping residential lots zoned R1-A, Low Density Residential and R1-B, Medium Density Residential.

(2) Trees designated by the City as Historic, Specimen, Street, Park, Memorial and other public trees shall be regulated pursuant to Chapter 35, Trees, Shrubs and Weeds.

(3) All developments, redevelopments, and/or land disturbing activities that are located in R1-A and R1-B zones that will disturb greater than or equal to twenty-five hundred (2,500) square feet of land shall provide for the preservation and/or planting of trees on the lot to the extent that, at a maturity of ten (10) years, the minimum lot coverage of the tree canopy shall be twenty (20) percent.

(4) Tree canopy coverage includes all areas within a lot's property lines beneath the dripline of vegetation. Calculation of the tree canopy coverage shall be the sum total of the existing vegetation and replacement vegetation.

a. Preserved tree canopy coverage vegetation shall include the drip line beneath trees that measure no less than two (2) inches in diameter at breast height (DBH) six (6) inches above ground level and shrubs that measure no less than five (5) feet in height.

b. Replacement tree canopy coverage shall be as calculated by the most recent standards for tree canopy coverage by the Virginia Nursery and Landscape Association. Vegetation that is not included in this list may be substituted for vegetation of similar growth rate, type and form.

(5) Existing vegetation that shall be credited towards the required tree canopy coverage includes:

a. Existing or relocated trees and/or shrubs that have been preserved in accordance with a Landscape Conservation Plan pursuant to Section 38-42, Chesapeake Bay Preservation Area Overlay District.

b. Canopy coverage from existing trees and/or shrubs shall be multiplied by 1.25 to determine the total tree canopy from preserved trees and shrubs. This is to encourage the preservation of existing vegetation and to recognize the additional environmental benefits that mature trees provide.

(6) Existing vegetation that *shall not* be credited towards the required tree canopy coverage include:

a. Trees with a rating of poor to fair and with a life expectancy less than ten (10) years, as calculated by the City Arborist using the most recent edition of "The Guide for Plant Appraisal" published by the International Society of Arboriculture.

b. Undesirable and/or invasive vegetation, as published by the Virginia Department of Conservation and Recreation (DCR) and the Virginia Native Plant Society (VNPS).

(7) Replacement vegetation is required on lots that do not meet the minimum tree canopy coverage requirements either through the preservation of existing

vegetation or due to the absence of tree canopy coverage present at the time of development or redevelopment.

- a. Replacement vegetation should be chosen from the “Recommended List of Trees and Shrubs to Plant in the City of Falls Church”.
- b. Substitute vegetation may be considered provided that it does not negatively impact native plant communities, cause damage to nearby structures and infrastructure, or possess inherent physiological traits that cause such trees to structurally fail.
- c. Size, planting and installation specifications of the required replacement vegetation shall be pursuant to this section.

(8) In addition to the quantity of the replacement vegetation, its quality shall be encouraged through providing tree canopy coverage credit(s). Credit shall be given for the following types of vegetation that are selected and planted on the lot so that it improves the overall health and condition of the urban tree canopy and provides for additional environmental benefits.

- a. A best management practice (BMP) credit of twenty-five (25) percent of the tree canopy of the individual tree shall be given for those trees that are used in rain gardens, bio retention areas or other vegetative best management practices.
- b. An energy conservation credit of twenty-five (25) percent of the tree canopy of the individual tree shall be given for those types of trees that are an approved species for energy conservation. Trees shall be located twenty (20) to thirty-five (35) feet from the edge of a building and shade its western, southwestern or northern exposure from 2:30 p.m. to 7:30 p.m. from May through September.
- c. A species diversity credit of an additional ten (10) percent shall be given for the use of not more than twenty (20) percent of the trees to be of the same species.
- d. A utility line compatibility credit of the average of the listed shade trees shall be given for trees that are an approved species that do not conflict with overhead utility lines. This credit applies when site constraints do not allow for the planting of shade trees elsewhere on the lot.

(9) Installation and bonding requirements of replacement vegetation shall be regulated pursuant to section 38-29(j) (2), Site Plans.

(10) Where areas to be preserved (as designated on an approved Landscape Conservation Plan) are encroached upon, the City Arborist may require the replacement of any vegetation damaged or destroyed. The size, species and quantity of these replacements shall be determined by the City Arborist based on the value of the vegetation removed as calculated by the latest formula published by the International Society of Arboriculture.

(11) Modifications to the tree canopy coverage requirement in this section may be permitted when in the professional opinion of the City Arborist, a lot's unique physical constraints will not allow for the planting of the replacement vegetation. Only in these cases, the City Arborist may allow a cash contribution to the tree

canopy coverage fund or off-site mitigation fund whereby a portion of a lot's tree canopy coverage requirements may be met from off-site mitigation planting or replanting at locations at the direction of the City Arborist.

(12) The tree canopy coverage fund or off-site mitigation fund shall be established for the deposit of cash contributions and mitigation fees, when necessary, and administered by the City Arborist. This fund shall be utilized to plant trees on public and/or private properties within the City of Falls Church boundaries.

- a. Cash contribution shall be based upon the replacement cost of the vegetation. The replacement cost shall be the sum total of all costs to purchase, transport, plant and guarantee the tree(s) for one (1) year from the date of planting.
- b. Requests for tree plantings on private property shall be prioritized based on the lot's location in the sub watershed, existing tree canopy coverage and other site conditions that would improve the urban tree canopy. The commitment of the homeowner to provide long term care for the planting shall be required.
- c. Tree plantings shall be contracted out yearly and documentation provided to the Tree Commission and/or other interested parties as to the fund's administration, and the locations and types of trees planted.

*(c) Commercial, Multi-Family and Mixed Use Development - Perimeter Parking Lot Landscaping.* The perimeter around off-street parking lots, newly constructed and/or existing, shall be landscaped in accordance with this section whenever a site plan is required for the property upon which it is located. The area shall be landscaped with a combination of trees, shrubs, fences, and walls and/or berms of sufficient height and density. The purpose of the landscaping is to screen the parking or other vehicular use area from public streets and/or abutting properties; to provide street and/or shade trees; and to provide an attractive appearance in keeping with the city's character.

- (1) Perimeter parking lot landscaping adjacent to public streets.
  - a. Perimeter parking lot landscaping shall be provided between an off-street parking area or other vehicular use area and any adjacent public street. If the area is screened by an intervening structure such as a building, screening is not required.
  - b. A solid landscaped planting strip that is at least three and one-half (3 ½) feet in height and ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet. See Table 4 in Section 38-30(g), *Bonding, Installation, Specifications and Maintenance of Vegetation*, for minimum vegetation size requirements.
  - c. In cases where substantial grading results in a parking lot lower in elevation than the adjacent right-of-way, the resulting embankment should be planted with the required vegetation.

- ( 2) Perimeter parking lot landscaping adjacent to abutting properties.
  - a. Non-residential zoned properties.

1. A solid landscaped planting strip that is at least three and one-half (3-½) feet in height and at least ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred linear (100) feet. See Table 4 in section 38-30 (g) *Bonding, Installation, Specifications and Maintenance of Vegetation*, for minimum vegetation size requirements.
2. Where the required landscaped strip abuts an existing hedge, wall or other durable barrier on the abutting property, the existing barrier may partially satisfy the landscape requirements of this subsection, provided that the existing hedge, wall or other durable barrier meets the screening height, is attractive in appearance and the required trees have adequate space to grow.

b. *Residential zoned properties.* A solid landscaped planting strip at least that is five (5) feet in height and at least ten (10) feet in width shall be provided. This strip shall contain a minimum of twenty-five (25) large shrubs and four (4) canopy trees per one hundred linear (100) feet. See Table 4 in section 38-30 (g) *Bonding, Installation, Specifications and Maintenance of Vegetation*, for minimum vegetation size requirements.

(d) *Commercial, Multi-Family and Mixed Use Development- Interior Parking Lot Landscaping.* Shall apply to all parking lots that are 3,420 square feet in size and/or whenever a site plan is required for the property upon which it is located. Interior parking lot areas shall be located and landscaped in such a manner as to divide and break up the expanse of pavement and to provide for safe movement of vehicles and pedestrians. Furthermore, parking lots shall be adequately constructed to support shade trees, which reduce the negative environmental impacts of impervious surface area and improve the aesthetics of parking lots.

Parking lot areas shall contain a minimum of five (5) percent interior landscaping in addition to any required perimeter landscaping. Trees located in a required perimeter landscape planting strip shall not be credited toward the interior parking lot landscaping requirements. The five (5) percent interior parking lot landscaping requirement calculations shall be clearly labeled and vegetation included in the calculations shown on the landscape plan.

- (1) One planting island of a minimum area of 162 square feet shall be provided for every 3,240 square feet of parking lot area. Each planting island shall contain a minimum of one (1) shade tree per 162 square feet, shrubs and/or groundcover throughout the entire area of the planting island.
- (2) Required trees shall be located in islands or medians, between rows of parking spaces, and/or at the end of parking bays. Every parking space shall be located no more than ninety (90) feet from an interior parking lot tree.
- (3) Planting islands shall be a minimum inside dimension of nine feet by eighteen feet (9' x 18') in area, underlain by soil (not base course material) prepared to a minimum depth of twenty-four (24) inches. Alternatively,

structural soil or irrigation may be used to aid in the sustainability of the vegetation.

*(e) Required Buffer Strips Between Zoning Districts.* Buffers between different adjacent zoning districts shall apply to all sites whenever a site plan is required for the property upon which it is located. These requirements do not apply to perimeter boundaries that are within the same zoning district. The purpose of the buffer is to visually integrate developments into the existing landscape, buffer lower density districts, buffer and screen commercial uses and ensure that a vegetative area of appropriate size and density is located between zoning districts.

(1) Buffers shall be continuous pervious planting areas with adequate space to support vegetation both above and below ground. No parking, drive aisles, and utilities shall be permitted in the buffer.

(2) The five (5) buffer types are described below and are summarized in Table 1. The matrix to determine the appropriate category to use, depending on the property's zoning district and the surrounding property's zoning district, follows in Table 2. A property may abut more than one zoning district; in that case, a different requirement would apply to each side of the property.

**Buffer A** -- A ten (10) foot wide landscape planting strip with a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet.

**Buffer B** -- A ten (10) foot wide landscape planting strip with a minimum of twenty-five (25) small shrubs and four (4) canopy trees per one hundred (100) linear feet. In addition to this vegetation, a screening element at least six (6) feet in height must be created to consist of either a masonry wall, a combined three (3) foot high earthen berm with the required landscaping located atop the berm, or a solid wood fence.

**Buffer C** -- A seven (7) foot wide landscape planting strip with a minimum of twelve (12) evergreen trees per one hundred (100) linear feet. In addition to this vegetation, a screening element at least six (6) feet in height must be created to consist of either a masonry wall or a solid wood fence.

**Buffer D** -- A twenty (20) foot wide landscape planting strip with a minimum of twenty five (25) small shrubs, twenty five (25) large shrubs, twelve (12) evergreen trees and four (4) canopy trees per one hundred (100) linear feet.

**Buffer E** -- A fifteen (15) foot wide landscape planting strip with a minimum of twenty five (25) large shrubs and four (4) canopy trees per one hundred (100) linear feet. In addition to this vegetation, a screening element at least six (6) feet in height must be created to consist of either a masonry wall, a combined three (3) foot high earthen berm with the required landscaping located atop the berm, or a solid wood fence.

**Table 1: Buffer Type and Vegetation Planting Density.**

Buffer	Minimum	*Shade	Evergreen	Small	Large	Screening
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Type	Width	Tree	Tree	Shrub	Shrub	Element
A	10'	4/100'		25/100'		No
B	10'	4/100'		25/100'		Yes
C	7'		12 /100'			Yes
D	20'	4/100'	12/100'	25/100'	25/100'	No
E	15'	4/100'			25/100'	Yes

\* In the case of overhead utility lines, six (6) understory trees per one hundred (100) feet shall be substituted for shade trees.

(3) Buffers A, B, C, D, and E are minimum standards for the size and density of the vegetation in the buffer areas. The developer may substitute a more intense buffer type, for example, requirement B being higher than A. In certain situations, as shown in the Table 2, choices for buffer types are given.

(4) Existing topographic conditions, such as embankments or berms, may be substituted for part or all of the required buffer area at the discretion of the City Arborist. The minimum visual effect shall be equal to or exceed that of the required buffer. The height of the berm shall be measured from the grade of the adjacent property.

(5) Existing trees and other vegetation may be used for buffers if they are healthy and are approved as part of the landscaping plan by the City Arborist. The minimum quantities and /or visual effect of the existing vegetation shall be equal to or exceed that of the required landscape planting strip.

**Table 2: Required Buffer Category by Proposed and Adjacent Zoning Districts\***

Zoning District (proposed development)	Zoning District (adjacent property)					
	R-1A	R-1B	R-C	R-TH	R-M	O-D
<b>R-C **</b>	A	A	N/A	A	A	A
<b>R-TH</b>	A	A	A	N/A	A	A
R-M	B or C	B or C	B or C	B or C	N/A	B or C
O-D	N/A	N/A	N/A	N/A	N/A	N/A
<b>T-1</b>	A	A	A	A	A	A
<b>T-2</b>	A	A	A	A	A	A
<b>B-1</b>	D or E	D or E	D or E	D or E	D or E	D or E

<b>B-2</b>	D or E	D or E	D or E	D or E	D or E	D or E
<b>B-3</b>	D or E	D or E	D or E	D or E	D or E	D or E
<b>M-1</b>	D	D	D	D	D	D

\* More than one requirement may apply to a proposed development if it is adjacent to more than one zoning district.

\*\* Buffer is required along the side and rear boundaries of the development abutting business districts. B-1, B-2 and B-3 districts were not included in chart as it only applied to R-C category .

*(f) Design Criteria*

(1) Landscape plans shall be prepared by a landscape architect, landscape designer, certified arborist or Virginia Certified Nurseryman (VCN).

a. Vegetation should be chosen from the “Recommended List of Trees and Shrubs to Plant in the City of Falls Church”. The applicant may propose the use of vegetation or designs that fulfill the intent of this section, with the approval of the City Arborist.

b. Required vegetation in screening landscape planting strips, landscaping in interior parking lot areas and buffers shall be distributed over their entire lengths and widths.

c. Vegetation may be arranged symmetrically (formal) or asymmetrically (informal) and shall be grouped to form plant clusters. Informal groupings that reflect the natural character of the region are encouraged.

(2) To increase the diversity of the age and species in the urban forest, consideration shall be given to save mature trees and to plant trees on sites where the tree population is over maturing. Also, to allow for a variety of interest in form, color and height to reduce the opportunity for pest and disease population increase, the following chart shall be used to select the appropriate number of species:

**Table 3: Plant Diversity Chart**

NUMBER OF PLANT MATERIALS	MINIMUM NUMBER OF SPECIES	MAXIMUM % OF ANY ONE SPECIES
0-5	1	100
6-15	2	50
16-30	3	40
31-50	4	30
50 +	6	20



- (3) The location, dimension and spacing of required plantings shall be adequate for their proper growth and maintenance, taking into consideration the sizes of such plantings at maturity and the present and future environmental requirements, such as wind, soil, moisture and sunlight.
- (4) Where the required plantings abut City parkland or other ecologically sensitive areas, vegetation shall be non-invasive and be selected from indigenous trees, shrubs and perennials. This is to restrict the introduction of invasive plant species; vegetation shall be determined by the City Arborist.
- (5) Foundation plantings. To soften the edge of the building in the landscape, a five (5') foot wide planting area may be required in instances where the proposed building is not abutting the public right-of-way, sidewalks or parking lot. Vegetation should achieve a minimum of three and one-half (3.5) feet to five (5) feet in height.
- (6) Street trees. Shall be required when they abut or lie within a proposed subdivision or development and/or redevelopment along all proposed public and private streets.
- a. Where there is no public right-of-way, a perpetual easement for street tree planting and maintenance may be requested of the developer and recorded on the development plan.
  - b. Trees placed in the public right-of-way shall become the responsibility of the City to maintain and replace.
  - c. Tree canopy coverage provided by street trees planted in conjunction with residentially zoned R1-A or R1-B lots may be credited towards the lot's minimum canopy coverage requirements.
- (7) Off-street parking structures. Off-street parking structures shall conform to all applicable provisions of yard requirements, section 38-28. Landscaping shall be provided and maintained in all yards. Suitable facades shall be provided as part of the structure. Landscaping requirements shall not apply to parking spaces within such structures. A wall at least three and one-half (3 1/2) feet in height shall surround any parking which is on top of a structure, and suitable plantings shall be provided to buffer the view of such parking from nearby properties and rights-of-way.
- (8) Landscape borders. All landscaped areas adjacent to any vehicular travel way, parking space or other vehicular use area shall be bordered by a six-inch concrete header curb. Wheel stops or other appropriate devices may be substituted when the department of public works determines that such alternative devices are needed for drainage purposes.
- (9) Sight distance for landscaping adjacent to points of access. Plantings shall be selected and located so that they do not contribute to conditions that may be hazardous to public safety. Such locations include, but are not limited to, public street right of ways, underground and above ground utilities .

(10) When an access way intersects a public right-of-way, all landscaping within the triangular areas described below shall provide unobstructed horizontal visibility between three (3) feet and six (6) feet above pavement level. Tree trunks may be permitted in these areas provided they do not constitute a traffic hazard. The triangular areas referred to above are formed by each side of the access way and public right of way line, with each side being ten (10) feet in length from the point of intersection, and the third side being a line connecting the ends of the two (2) other sides.

(11) Landscaping adjustments after installation. In the event that the landscaping materials approved by the planning commission cannot be installed due to unavailability, or if the installed varieties fail, substitute materials may be installed, provided they are approved by the City Arborist.

(12) Exceptions. The Planning Commission may waive or modify the requirements of this section where adjacent properties are developed under a unified site plan or where the strict interpretation of these provisions would reduce the usable area of a site to a point that would preclude a reasonable use. In such instances, special landscaping and/or architectural techniques may be required in lieu of the requirements of this subsection. The Planning Commission may also attach conditions to any such waiver or modification to assure that the results of the waiver or modification shall be in accord with the purposes and intent of this subsection.

(g) *Bonding, Installation, Specifications and Maintenance of Vegetation.* The following shall apply to all vegetation or transplanted vegetation as required under this section. All vegetation shall meet the minimum standards for health, form, and root condition as outlined in the latest edition of *American Standard for Nursery Stock*, published by the American Association of Nurserymen (AAN).

(1) Installation and bonding requirements of vegetation shall be regulated pursuant to section 38-29(j) (2), Site Plans. All installation of the vegetation shall be carried out under the inspection of the City Arborist. Installation may be spot checked by the City Arborist.

**Table 4: Vegetation and Minimum Size Chart**

TYPE OF VEGETATION	MINIMUM SIZE AT PLANTING	SIZE AT MATURITY
Shade Tree	2 – 2 ½” caliper	> 40’
Understory Tree	2 – 2 ½” caliper	< 40’
Evergreen Tree	6’	12 – 20’
Large Shrub	24”	> 5’
Small Shrub	24”	> 3 1/2’

(2) Vegetation substitutions. Due to seasonal planting issues or a lack of plant availability, approved landscape plans may require minor revisions. Minor revisions to planting plans may be approved by the City Arborist if there is no

reduction in the quantity or significant change in size or location of vegetation and the new vegetation has the same general design characteristics (approved species, mature height, crown spread) as the vegetation being replaced.

(3) Maintenance. It shall be the ultimate responsibility of successive property owners to insure that the required vegetation is properly maintained in compliance with the approved site plan in perpetuity. Dead or diseased plant material shall be removed or treated promptly by the property owner and replaced within 180 days.

(4) Maintenance guidelines for the plantings are encouraged to be published by the planting plan designer, to be used by grounds maintenance personnel to insure that the design's buffering and screening concepts are continued. The City of Falls Church Landscape Maintenance Guidelines shall be adhered to at a minimum and shall be shown on all landscape plans.

(5) Safety. All sight triangles shall remain clear, and any plant material that could endanger safety such as unstable limbs shall be removed and the plant material replaced if necessary. It shall be the responsibility of the property owner to maintain all plantings and architectural elements to ensure a safe environment.

(6) Plan approval. Plans submitted only for landscaping additions or deductions shall be considered by the Planning Commission following recommendations from the City Arborist and the Architectural Advisory Board, as part of the site plan process. Applicants are required to consult with the City Arborist in advance of plan preparation in order to determine what trees, shrubs and other landscape materials are preferred.

(7) Specific landscaping guidelines, planting design, and materials shall be reviewed by the City Arborist and by the Planning Commission during the site plan review process and shall be in accordance with the guidelines established by the City of Falls Church.

(8) All vegetation required by this section, except vegetation on single-family residential lots as detailed in subsection (b), must be installed prior to the occupancy of the site. Where compliance with this regulation is not possible because of seasonal planting limitations, the City Arborist shall grant an appropriate delay.